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3868-0114P

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)

10/089187

INTERNATIONAL APPLICATION NO.

PCT/EP00/08927

INTERNATIONAL FILING DATE

September 13, 2000

PRIORITY DATE CLAIMED

September 28, 1999

TITLE OF INVENTION

PROCESS AND DEVICE FOR DISPENSING PRESSURE-SENSITIVE ADHESIVE LAMINATE SECTIONS FROM A
MOVABLE PRIMARY ONTO A MOVABLE SECONDARY CARRIER BAND

APPLICANT(S) FOR DO/EO/US

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Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39 (1).
4. ☒ The US has been elected by the expiration of 19 months from the priority date (Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
 - a. ☐ is transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☒ has been transmitted by the International Bureau. WO 01/22946
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
 - a. ☒ is transmitted herewith.
 - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4)
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)).
 - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ have been transmitted by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☒ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 20. below concern document(s) or information included:

11. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98, Form PTO-1449(s), and International Search Report (PCT/ISA/210) with 0 cited document(s).
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A FIRST preliminary amendment.
14. ☐ A SECOND or SUBSEQUENT preliminary amendment.
15. ☐ A substitute specification.
16. ☐ A change of power of attorney and/or address letter.
17. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821-1.825.
18. ☐ A second copy of the published international application under 35 U.S.C. 154(d)(4).
19. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).
20. ☒ Other items or information:
 - 1.) Three (3) sheets of Formal Drawings

[illegible]

/cqc

PATENT
3868-0114P

IN THE U.S. PATENT AND TRADEMARK OFFICE

Applicant: VON FALKENHAUSN, Christian et al.
Int'l. Appl. No.: PCT/EP00/08927
Appl. No.: New Group:
Filed: March 27, 2002 Examiner:
For: PROCESS AND DEVICE FOR DISPENSING PRESSURE-
SENSITIVE ADHESIVE LAMINATE SECTIONS FROM A
MOVABLE PRIMARY ONTO A MOVABLE SECONDARY
CARRIER BAND

PRELIMINARY AMENDMENT

BOX PATENT APPLICATION

Assistant Commissioner for Patents
Washington, DC 20231

March 27, 2002

Sir:

The following Preliminary Amendments and Remarks are respectfully submitted in connection with the above-identified application.

AMENDMENTS

IN THE SPECIFICATION:

Please amend the specification as follows:

Before line 1, insert --This application is the national phase under 35 U.S.C. § 371 of PCT International Application No. PCT/EP00/08927 which has an International filing date of September 13, 2000, which designated the United States of America.--

Docket No. 3868-0114P

IN THE CLAIMS:

Please amend the claims as follows:

3. (Amended) Process according to Claim 1, characterized in that two sections (4', 4") of the dispenser edge 4 span an angle of between 1° to 179° or 181° to 359°.

4. (Amended) Process according to Claim 1, characterized in that two sections (4', 4") of the dispenser edge are arranged at a distance from each other in the direction of travel of the band.

5. (Amended) Process according to Claim 1, with the primary band (1) being separated into at least three strips (5, 5', 5"), characterized in that initially the inner strip or strips (5") of the primary band (1) is/are deflected at a first section of the dispenser edge (4), and that the outer strip (5, 5') is subsequently deflected at further sections of the dispenser edge (4).

6. (Amended) Process according to Claim 1, characterized in that the at least two strips of the primary band (1) are peeled from the pressure-sensitive adhesive laminate (3) successively, in several stages.

7. (Amended) Process according to Claim 1, characterized in that the at least two strips of the primary band (1) are simultaneously peeled from the pressure-sensitive adhesive laminate (3).

8. (Amended) Process according to Claim 1, characterized in that the primary band (1) is directed, relative to the secondary carrier band (2), at a transport speed which is equal to or lower than that of the secondary carrier band (2).

9. (Amended) Process according to Claim 1, characterized in that the primary band (1) and/or the secondary band (2) is/are conveyed continuously or intermittently.

10. (Amended) Process according to Claim 1, characterized in that the dispenser edge (4) is moved, in a first cycle, in the direction of travel of the band, and, during or after dispensing of the pressure-sensitive adhesive laminates (3) or laminate sections, is returned, against the direction of travel of the band, to the start position in a further cycle.

13. (Amended) Device according to Claim 10, characterized in that the dispenser edge (4) has at least two sections (4', 4'') in non-linear arrangement.

14. (Amended) Device according to Claim 10, characterized in that the at least two sections (4', 4'') form an angle of between 1° to 179° or 181° to 359° .

15. (Amended) Device according to Claim 10, characterized in that the at least two sections (4', 4'') are arranged at a distance from each other, in the direction of travel of the band.

16. (Amended) Device according to Claim 10, characterized in that a separation or predetermined breaking line runs in the primary band (1), exactly over the end points of the sections of the dispenser edge.

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17. (Amended) Device according to Claim 10, characterized in that a first section of the dispenser edge (4), which section is arranged in a middle region, and further sections of the dispenser edge (4), which sections are arranged in the outer region, are configured at right angles to the direction of travel of the band.

18. (Amended) Device according to Claim 10, characterized in that the V-shaped profile of a dispenser edge (4) has at least one step on both sides of the cutting lines (10, 10'), which run in the direction of travel of the band.

19. (Amended) Device according to Claim 10, characterized in that the dispenser edge (4) has an inwardly facing fold in the direction of travel of the band.

20. (Amended) Device according to Claim 10, characterized in that, downstream of the dispensing edges 4, the secondary carrier band (2) is advanced in the direction of band travel to the transfer site via a deflecting device in the form of a roller (15) or a rounded deflecting edge.

REMARKS

The specification has been amended to provide a cross-reference to the previously filed International Application.

The amendment to the claims is merely to delete multiple dependencies and to place the application into better form for examination. Entry of the above amendments is earnestly solicited. An early and favorable first action on the merits is earnestly solicited.

Attached hereto is a marked-up version of the changes made to the application by this Amendment.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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By 
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Attachment: VERSION WITH MARKINGS TO SHOW CHANGES MADE

(Rev. 02/21/02)

VERSION WITH MARKINGS TO SHOW CHANGES MADE

The claims have been amended as follows:

3. (Amended) Process according to Claim 1[or 2], characterized in that two sections (4', 4'') of the dispenser edge 4 span an angle of between 1° to 179° or 181° to 359°.

4. (Amended) Process according to [any one of Claims 1 to 3]Claim 1, characterized in that two sections (4', 4'') of the dispenser edge are arranged at a distance from each other in the direction of travel of the band.

5. (Amended) Process according to [any one of Claims 1 to 4]Claim 1, with the primary band (1) being separated into at least three strips (5, 5', 5''), characterized in that initially the inner strip or strips (5'') of the primary band (1) is/are deflected at a first section of the dispenser edge (4), and that the outer strip (5, 5') is subsequently deflected at further sections of the dispenser edge (4).

6. (Amended) Process according to [one or more of Claims 1 to 5]Claim 1, characterized in that the at least two strips of the primary band (1) are peeled from the pressure-sensitive adhesive laminate (3) successively, in several stages.

7. (Amended) Process according to [one or more Claims 1 to 6]Claim 1, characterized in that the at least two strips of the primary band (1) are simultaneously peeled from the pressure-sensitive adhesive laminate (3).

[illegible]

8. (Amended) Process according to [one or more of Claims 1 to 5]Claim 1, characterized in that the primary band (1) is directed, relative to the secondary carrier band (2), at a transport speed which is equal to or lower than that of the secondary carrier band (2).

9. (Amended) Process according to [one or more of Claims 1 to 8]Claim 1, characterized in that the primary band (1) and/or the secondary band (2) is/are conveyed continuously or intermittently.

10. (Amended) Process according to [one or more of Claims 1 to 9]Claim 1, characterized in that the dispenser edge (4) is moved, in a first cycle, in the direction of travel of the band, and, during or after dispensing of the pressure-sensitive adhesive laminates (3) or laminate sections, is returned, against the direction of travel of the band, to the start position in a further cycle.

13. (Amended) Device according to Claim 10[or 11], characterized in that the dispenser edge (4) has at least two sections (4', 4'') in non-linear arrangement.

14. (Amended) Device according to [one or more of Claims 10 to 12]Claim 10, characterized in that the at least two sections (4', 4'') form an angle of between 1° to 179° or 181° to 359°.

15. (Amended) Device according to [one or more of Claims 10 to 13]Claim 10, characterized in that the at least two sections (4', 4'') are arranged at a distance from each other, in the direction of travel of the band.

16. (Amended) Device according to [one or more of Claims 10 to 14]Claim 10, characterized in that a separation or predetermined breaking line runs in the primary band (1), exactly over the end points of the sections of the dispenser edge.

17. (Amended) Device according to [one or more of the Claims 10 to 15]Claim 10, characterized in that a first section of the dispenser edge (4), which section is arranged in a middle region, and further sections of the dispenser edge (4), which sections are arranged in the outer region, are configured at right angles to the direction of travel of the band.

18. (Amended) Device according to [one or more of Claims 10 to 16]Claim 10, characterized in that the V-shaped profile of a dispenser edge (4) has at least one step on both sides of the cutting lines (10, 10'), which run in the direction of travel of the band.

19. (Amended) Device according to [one of more of Claims 10 to 17]Claim 10, characterized in that the dispenser edge (4) has an inwardly facing fold in the direction of travel of the band.

20. (Amended) Device according to [one or more of Claims 10 to 18]Claim 10, characterized in that, downstream of the dispensing edges 4, the secondary carrier band (2) is advanced in the direction of band travel to the transfer site via a deflecting device in the form of a roller (15) or a rounded deflecting edge.

LTS 1999/021 WO

3/prts

Process and device for dispensing pressure-sensitive adhesive laminate sections from a movable primary onto a movable secondary carrier band

The invention relates to a process for dispensing pressure-sensitive adhesive laminates or laminate sections from a movable primary to a movable secondary carrier band, said laminates, upon deflection of the primary band around a dispenser edge, being detached and dispensed onto the secondary band.

It is known how to produce and use pressure-sensitive adhesive laminate sections which are adhesive over a surface. These may be, for example, labels, stickers, transdermal therapeutic systems (TTSs) or double-sided adhesive tape. The pressure-sensitive adhesive surface or a pressure sensitive adhesive-rendered matrix of these laminate sections is typically covered by a carrier band at least partially projecting beyond the same. Technically, these laminate sections are fabricated by punching a matrix and a backing layer, which is connected thereto, down to the carrier web by means of an appropriate tool, and peeling off and discarding a projecting lattice of matrix and a backing layer.

With this kind of fabrication of dermal or transdermal therapeutic, pressure-sensitive adhesive laminate sections, the surface coating of the carrier band may become damaged upon punching through the matrix and a backing layer connected with the matrix, which in the case of prolonged storage will cause problems in releasing the matrix from the carrier layer, especially where the therapeutic system possesses a strong tendency for cold flow, enabling the matrix to unintentionally form a pressure-sensitive ad-

This problem can, however, be avoided by transferring the transdermal plasters, following the separation of the sections of the laminate by punching them out of an original laminate, to a final, secondary carrier layer. A corresponding process is described in WO 97/22315. This process has as a prerequisite that a transdermal therapeutic system which is to be transferred can be released from a primary carrier band when being guided around a dispenser edge, and can thus be transferred to the final, secondary carrier band. If, however, the adhesive force of the matrix exceeds a certain value, this method can no longer be applied as the pressure-sensitive adhesive matrix in this case is no longer detachable from the carrier band but is deflected along with the primary carrier band.

Starting from the prior art, it is the object of the present invention to indicate a process and a device of the kind mentioned in the introductory portion of claim 1 which

overcome the difficulties and technical limitations mentioned and which are readily suitable for detaching even strongly pressure-sensitive adhesive laminate sections from their carrier bands upon deflecting the said sections around a dispenser edge, and for dispensing the said sections onto a movable secondary carrier band.

This object is solved by the invention, in a process of the kind mentioned in the introductory portion of claim 1, by separating the primary band into at least two strips or providing the primary band with corresponding predetermined breaking lines, deflecting the strips individually at the dispenser edge, and, in the process, detaching the pressure-sensitive adhesive laminates from the strips and dispensing them onto the secondary band.

An essential embodiment of the process of the invention provides for the dispenser edge to be designed such that the at least two strips of the first carrier band are deflected each at its own section of the dispensing edge. In the simplest case, the dispenser edge thus has two sections, at each of which is deflected a respective strip - preferably in different directions. To this end, the two sections of the dispenser edge are arranged in a non-linear manner. Between the two sections of the dispenser edge there is an angle, which is between 1° to 179° , or 181° to 359° . The separation line, or the predetermined breaking line, between the two strips of the first carrier band in this case runs precisely over the point of intersection of the two sections of the dispensing edge.

By subdividing the primary band into at least two strips which are pulled from the dispenser edge individually, there results, during the dispensing process, a stabilisation of the plaster in the direction of the band. This is promoted, in the case of a non-linear design of the

dispenser edge, by the fact that the strips are pulled off to one or both sides not in the direction of band travel, but each at an angle to the direction of band travel.

An alternative embodiment of the process, wherein the primary band is divided into at least three strips (i.e. by at least two separating or predetermined breaking lines), is characterized in that initially the inner strip or strips of the primary band are deflected at a first section of the dispenser edge and are, in the process, peeled off from the primary band and the laminates still adhering thereto. In this process, the pressure-sensitive adhesive laminates continue to be connected with the outer strips of the primary band. The outer strips are subsequently deflected via further sections of the dispenser edge, the pressure-sensitive adhesive laminates finally being released and dispensed onto the secondary band.

Due to the fact that each strip of the primary carrier web covers only a partial portion of the pressure-sensitive adhesive surface of the laminate section, which section as a consequence needs to overcome only a fraction of the total pressure-sensitive adhesive force, the detachment of the strongly pressure-sensitive adhesive laminate sections can be accomplished strip by strip, simultaneously, or successively in several stages, without any difficulty.

Since, especially in the case of successive detachment, only a fraction of the pressure-sensitive adhesive force needs to be overcome at a time, it is also possible in the process according to the invention to make use of the measure of guiding the primary carrier band at a slower transport rate relative to the secondary carrier band. This enables, for instance, the late placement, or adhesion, of a pressure-sensitive adhesive laminate section onto the secondary band, with only a small portion still sticking to

the primary carrier web. In this way, it is possible to realise substantial differences in band speed between the primary and secondary bands, thereby enabling an increase in the distances between the individual systems without taking further measures. The dispensing process may be accomplished in continuous or intermittent operation.

A device for the transfer of pressure-sensitive adhesive laminates or laminate sections from a movable primary to a movable secondary carrier band, with the laminates, upon deflection of the primary band around a dispenser edge being detached and being dispensed onto the secondary band, and comprising a primary and a secondary carrier band and a dispenser edge, is characterized in that it has at least one separating means arranged such that the primary band is provided with at least one separation and/or predetermined breaking line during movement of the said band in the direction of travel.

In a further embodiment, the process can be accomplished in cycles, whereby the dispenser edge (4) is moved, with the aid of its own drive, in the direction of band travel (the so-called advance travel) in a first cycle, and during or after the dispensing of the pressure-sensitive adhesive laminates (3) or laminate sections is moved against the direction of band travel (the so-called return travel) back to the start position in a further cycle.

Further embodiments of the device are indicated in the subclaims.

Further details, features and advantages of the invention will become apparent from the following explanation of two examples of embodiments schematically represented in the drawings. The drawings show:

- FIG. 1: a plan view of the device;
- FIG. 2a: a plan view of a dispenser edge with non-linear configuration, with the two sections (4' and 4") forming an angle of 90°;
- FIG. 2b: a sectional view of the dispenser edge cut along the section plane II-II in Fig. 2a;
- FIG. 3a: a plan view of a further embodiment of the dispensing device, wherein a middle section 4' is arranged in the direction of travel at a distance from two further sections 4";
- FIG. 3b: a side view of the dispensing device according to FIG. 3a.

The process for dispensing pressure-sensitive adhesive laminates 3 or laminate sections from a movable primary carrier band 1 to a movable secondary carrier band 2, with the laminates 3, upon deflection of the primary band 1 around a dispenser edge 4, being detached and being dispensed onto the secondary band 2, will become clear from viewing the figures 1 to 3b together and is characterized by the fact that the primary band 1 is divided into at least two strips 5, 5', the strips are deflected individually at the dispenser edge 4 and the laminates 3 are, in the process, removed from the strips 5, 5' and dispensed onto the secondary band 2.

This secondary band 2 can be advanced from underneath the band towards the discharge side of the primary band 1 via at least one deflecting roll 15.

As can be seen from Fig. 1, the band velocities V_1 and V_2 , may be different, that is, V_2 can be moved more slowly or more rapidly than V_1 . The distances between the laminate sections 3, which are to be dispensed, thereby become smaller or larger. The band velocities V_1 and V_2 may, however, also be equal.

According to the invention, the primary band 1 is separated into at least two strips, 5, 5' and the strips are singly deflected at the separate sections of the dispenser edge 4, the laminates 3 being removed from the strips 5, 5' and dispensed onto the secondary band 2.

As an aspect essential to the invention, the dispenser edge 4 possesses at least two sections 4' and 4". These sections 4' and 4" may form an angle of between 1° to 179° and 181° to 359° . The apex 14 here represents the point of intersection of the two non-linearly arranged sections 4' and 4" of the dispenser edge. The separation or predetermined breaking line 10 runs precisely over this point 14.

Preferred angles are those between 5° and 175° , particularly preferred are angles from 30° to 150° , and more particularly 90° .

To this end, as can be seen from Figs. 3, 3b, there is arranged in the region of the primary band 1 at least one separating means 13, in such a manner that the primary band 1 is split, weakened or perforated, but not the pressure-sensitive adhesive laminate 3 or the laminate sections.

One embodiment of the process, wherein the dispenser edge 4 is non-linear and the primary band 1 is separated into two strips, is characterized in that the strips 5, 5' are drawn off, not in the direction of travel of the primary band 1, but, as can be seen from Fig. 1, each at an angle to the direction of travel of the primary band 1, towards both sides. In the example shown in Fig. 1, the dispenser edge 4 has two sections at an angle of 90° , whereby the two strips 5, 5' are being pulled off each at a right angle from the direction of band travel, towards both sides, as indicated by the arrows 16.

The shape of the dispenser edge 4, in plan view and in section, is apparent from Figs. 2a and 2b.

Figs. 3a and 3b show another embodiment of the process using a device suitable therefor, in plan view (Fig. 3a) and in side view (Fig. 3b). Here, the primary web 1 is continuously separated into three strips 5, 5', 5'', which may be of equal or different width. In the direction of travel of the band, the inner strip 5'' of the primary band 1 is initially directed over a first section of the dispenser edge 4' and, in the process, is pulled off from the primary band 1 and from the laminates 3, which remain on the primary band 1. The pressure-sensitive adhesive laminates 3 continue to be pressure-sensitive-adhesively connected with outer strips 5, 5' of the primary band 1. Subsequently, the outer strips 5, 5' of the primary web are guided over further sections of the dispenser edge 4'', the laminates 3 are detached in the process and are dispensed onto the secondary band 2. Here, too, the dispenser edge has non-linearly arranged sections 4' and 4''. Since, however, the two sections 4' and 4'' are arranged at a distance in the direction of the band, it is not necessary for the sections to form an angle not equal to 0°.

The primary band 1 is thus successively peeled from the pressure-sensitive adhesive laminate 3 in several stages. Finally, the primary support band 1 may be guided at a different speed from that of the secondary carrier band 2, especially at a lower transport speed.

A device for transferring pressure-sensitive adhesive laminates or laminate sections 3 from a movable primary 1 to a movable secondary carrier band 2, with the laminates 3, upon deflection of the primary band 1 around a dispenser edge 4, being detached and dispensed onto the secondary band, will become clear when viewing the figures together and comprises a primary 1 and a secondary carrier web 2, at least one dispenser edge 4 and at least one separating

means. The separating means may be in the form of a fixedly positioned cutting blade 13 pressing against the primary band 1. It may be configured and arranged such that, during the movement of the primary band 1 in the direction of travel, it separates the primary band 1 lengthwise into at least two strips 5, 5', preferably in the middle region. The separating means may, however, also be a rotating cutting roller, that is, a so-called rotating knife. The separating means may split the carrier band completely, but may also project only partially into said band, thus creating a line of weakening (predetermined breaking line). Finally, the line may also be configured as a perforation if the primary band is to be split or cut off only point-wise or section-wise.

One embodiment of the device provides for a middle strip 5" or at least two inner strips 5 to be narrower than the laminate 3 to be detached.

A further embodiment of the invention provides for a first section 4' of the dispenser edge 4, which section is arranged at a middle region, and further sections 4" of the dispenser edge 4, which sections are arranged in the outer region, to be configured at right angles to the direction of band travel, as can be clearly seen from Fig. 3a.

If the dispenser edges are arranged obliquely to the direction of band travel, it is also possible to make use of the measure of providing the V-shaped profile of the dispenser edge 4 with at least one step at both sides of cutting lines (10, 10') which extend in the direction of band travel.

Finally, the dispenser edge 4 need not be configured so as to be planar, but instead may have an inwardly facing fold around a folding line, which folding line extends in the

direction of band travel. Here, the position of the at least one fold line preferably corresponds to the position of the at least one separation or predetermined breaking line.

As can be seen from Figures 2a and 2b, it is preferred that, downstream of the dispensing edge 4, the secondary carrier band 2 be forwarded in the direction of band travel to the transfer site via a deflecting device in the form of a roller 15 or some kind of rounded deflecting edge.

The dispensing edge may be configured in the shapes indicated in Figure 4. The V-shaped cut of the dispenser edge may be configured in an obtuse (A') or acute (A'') angle. The angle α (Fig. 4) can vary between 5° and 175° .

Advantageously, however, an angle of 30° to 150° , and particularly advantageously, of 90° , is observed. Embodiments where the angles β and β' are configured so as to be asymmetric may be of advantage here.

The dispensing edge itself may be configured so as to be planar (A), but embodiments are also conceivable where a non-planar dispenser edge (Figs. 4B and 4C; front view) is of particular advantage. In this case, it is advantageously possible to dispense with a V-shaped configuration of the dispenser edge. Here, the pressure-sensitive adhesive laminate section is stabilised in the third dimension by a fold.

The invention is useful and provides an optimal solution to the task set at the beginning.

C L A I M S

1. Process for dispensing pressure-sensitive adhesive laminates (3) or laminate sections from a movable primary (1) onto a movable secondary carrier band (2), the laminates (3), upon deflection of the primary band (1) around a dispenser edge (4), being detached and dispensed onto the secondary band (2), characterized in that the primary band (1) is provided with at least one separation line or predetermined breaking line, thus subdividing it into at least two strips (5, 5'), and that the strips are individually pulled from separate sections (4', 4") of the dispenser edge (4).

2. Process according to Claim 1, characterized in that the at least two sections of the dispenser edge (4) are arranged in a non-linear manner.

3. Process according to Claim 1 or 2, characterized in that two sections (4', 4") of the dispenser edge 4 span an angle of between 1° to 179° or 181° to 359°.

4. Process according to any one of Claims 1 to 3, characterized in that two sections (4', 4") of the dispenser edge are arranged at a distance from each other in the direction of travel of the band.

5. Process according to one or more of Claims 1 to 4, with the primary band (1) being separated into at least three strips (5, 5', 5"), characterized in that initially the inner strip or strips (5") of the primary band (1) is/are deflected at a first section of the dispenser edge (4), and that the outer strip (5, 5') is subsequently deflected at further sections of the dispenser edge (4).

6. Process according to one or more of Claims 1 to 5, characterized in that the at least two strips of the primary band (1) are peeled from the pressure-sensitive adhesive laminate (3) successively, in several stages.

7. Process according to one or more of Claims 1 to 6, characterized in that the at least two strips of the primary band (1) are simultaneously peeled from the pressure-sensitive adhesive laminate (3).

8. Process according to one or more of Claims 1 to 5, characterized in that the primary band (1) is directed, relative to the secondary carrier band (2), at a transport speed which is equal to or lower than that of the secondary carrier band (2).

9. Process according to one or more of Claims 1 to 8, characterized in that the primary band (1) and/or the secondary band (2) is/are conveyed continuously or intermittently.

10. Process according to one or more of Claims 1 to 9, characterized in that the dispenser edge (4) is moved, in a first cycle, in the direction of travel of the band, and, during or after dispensing of the pressure-sensitive adhesive laminates (3) or laminate sections, is returned, against the direction of travel of the band, to the start position in a further cycle.

11. Device for transferring pressure-sensitive adhesive laminates (3) or laminate sections from a movable primary (1) onto a movable secondary carrier band (2), the said laminates (3), upon deflection of the primary band (1) around a dispenser edge (4), being detached and dispensed onto the secondary band (2), comprising a primary (1) and a secondary carrier band (2) and a dispenser edge (4),

characterized in that it has a separation means which is arranged such that the primary band (1), during its movement in the direction of travel, is provided with at least one separation or predetermined breaking line.

12. Device according to Claim 10, characterized in that the separating means is a stationary knife, a rotating cutting roller or a rotating knife.

13. Device according to Claim 10 or 11, characterized in that the dispenser edge (4) has at least two sections (4', 4'') in non-linear arrangement.

14. Device according to one or more of Claims 10 to 12, characterized in that the at least two sections (4', 4'') form an angle of between 1° to 179° or 181° to 359° .

15. Device according to one or more of Claims 10 to 13, characterized in that the at least two sections (4', 4'') are arranged at a distance from each other, in the direction of travel of the band.

16. Device according to one or more of Claims 10 to 14, characterized in that a separation or predetermined breaking line runs in the primary band (1), exactly over the end points of the sections of the dispenser edge.

17. Device according to one or more of the Claims 10 to 15, characterized in that a first section of the dispenser edge (4), which section is arranged in a middle region, and further sections of the dispenser edge (4), which sections are arranged in the outer region, are configured at right angles to the direction of travel of the band.

18. Device according to one or more of Claims 10 to 16, characterized in that the V-shaped profile of a dispenser

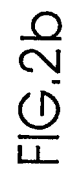
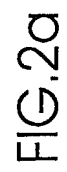
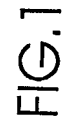
edge (4) has at least one step on both sides of the cutting lines (10, 10'), which run in the direction of travel of the band.

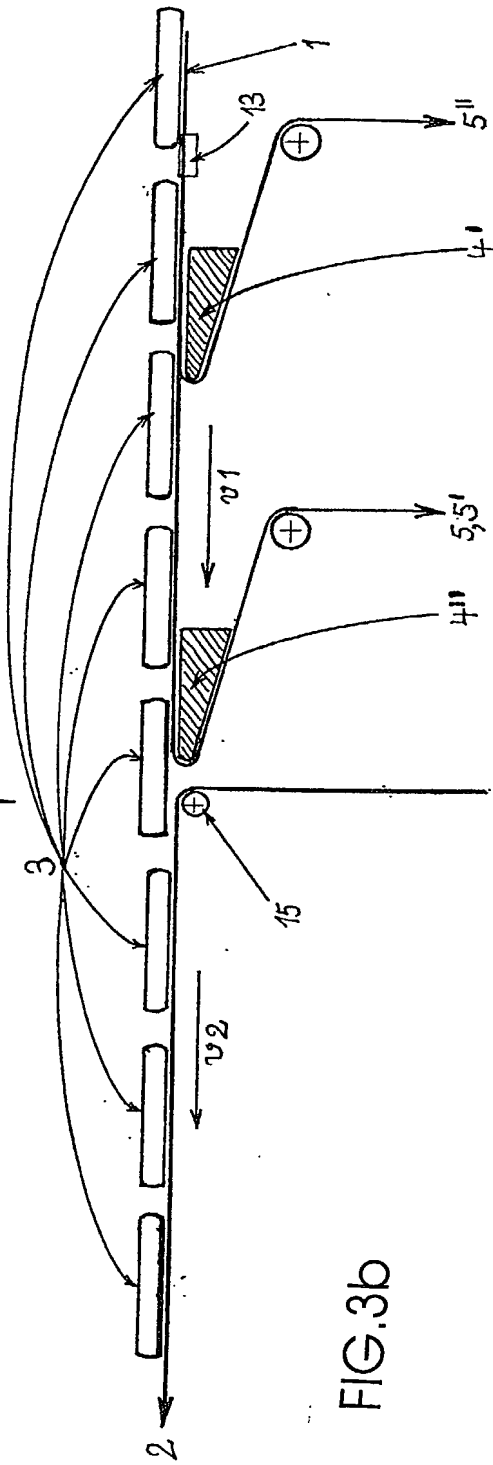
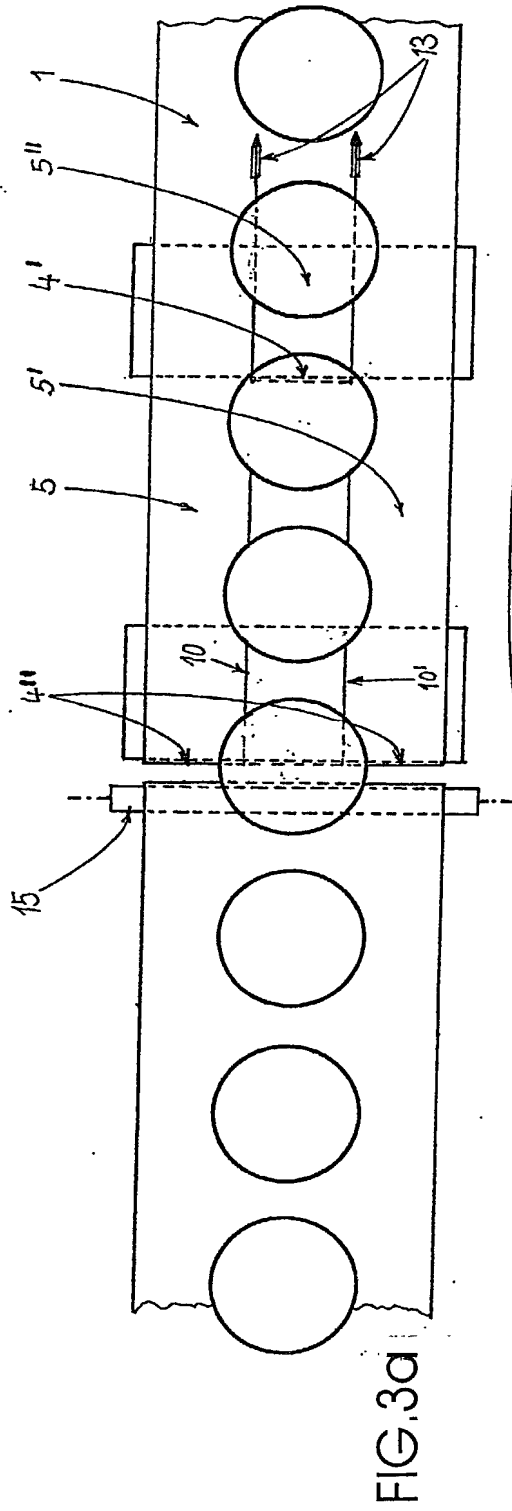
19. Device according to one or more of Claims 10 to 17, characterized in that the dispenser edge (4) has an inwardly facing fold in the direction of travel of the band.

20. Device according to one or more of Claims 10 to 18, characterized in that, downstream of the dispensing edges 4, the secondary carrier band (2) is advanced in the direction of band travel to the transfer site via a deflecting device in the form of a roller (15) or a rounded deflecting edge.

ABSTRACT

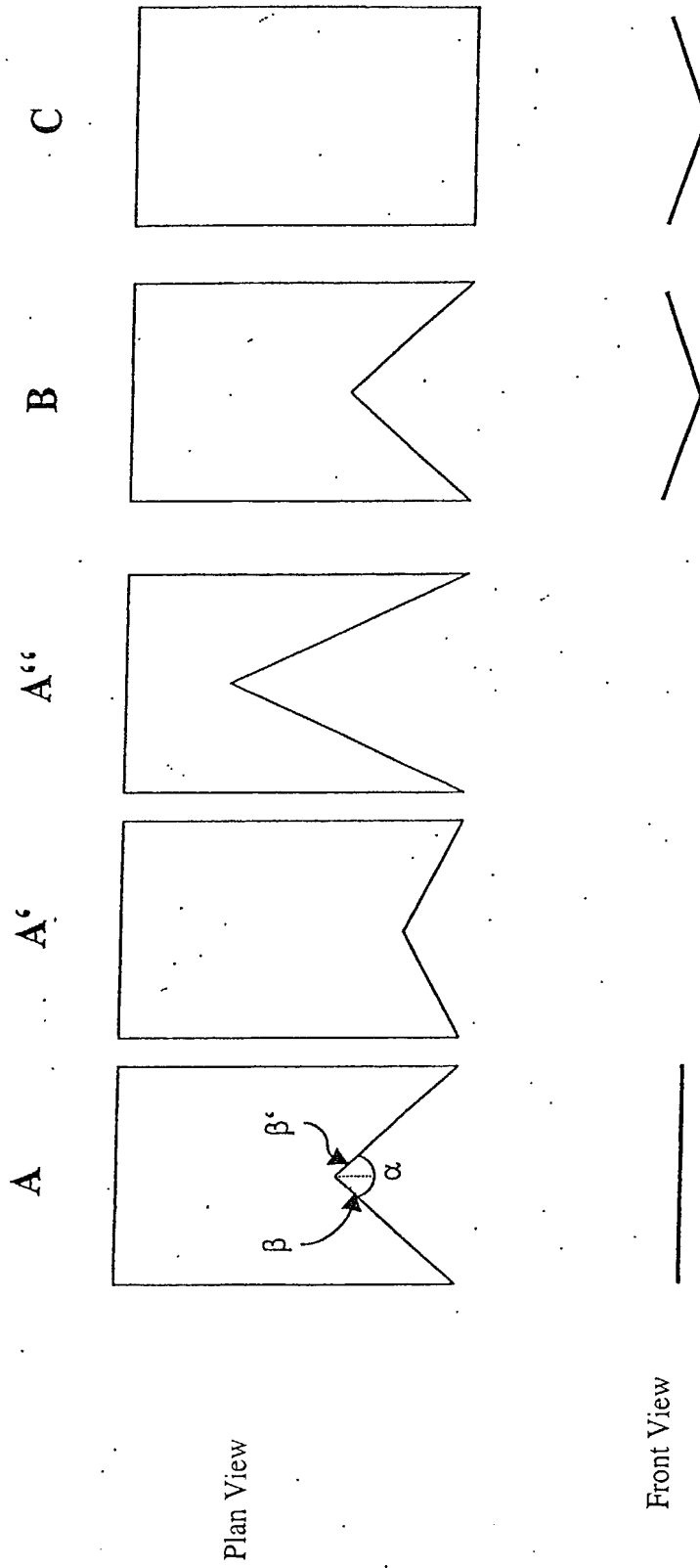
A process for dispensing pressure-sensitive adhesive laminates (3) or laminate sections from a movable primary (1) onto a movable secondary carrier band (2), the laminates (3), upon deflection of the primary band (1) around a dispenser edge (4), being detached and dispensed onto the secondary band (2), is characterized in that the primary band (1) is provided with at least one separation line or predetermined breaking line, thus subdividing it into at least two strips (5, 5'), and that the strips are individually drawn from separate sections (4', 4'') of the dispenser edge (4).





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FIG.4



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As a below named inventor, I hereby declare that: my residence, post office address and citizenship are as stated next to my name; that I verily believe that I am the original, first and sole inventor (if only one inventor is named below) or an original, first and joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Insert Title:

PROCESS AND DEVICE FOR DISPENSING PRESSURE-SENSITIVE ADHESIVE LAMINATE SECTIONS FROM A MOVABLE PRIMARY ONTO A MOVABLE SECONDARY CARRIER BAND

Fill in Appropriate
Information -
For Use Without
Specification
Attached:

the specification of which is attached hereto. If not attached hereto,

the specification was filed on March 27th, 2002 as
United States Application Number 10/089,187
and amended on _____ (if applicable) and/or
the specification was filed on September 13th, 2000 as PCT
International Application Number PCT/EP 00/08927; and was
amended on March 27th, 2002 (if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

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Prior Foreign Application(s)

Priority Claimed

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Information -
(if appropriate)

199 46 384 0
(Number)

GERMANY
(Country)

September 28th, 1999
(Month/Day/Year Filed)

☒ Yes ☐ No

(Number)

(Country)

(Month/Day/Year Filed)

☐ Yes ☐ No

(Number)

(Country)

(Month/Day/Year Filed)

☐ Yes ☐ No

(Number)

(Country)

(Month/Day/Year Filed)

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Insert Prior U.S.
Application(s):
(if any)

(Application Number)

(Filing Date)

(Status - patented, pending, abandoned)

(Application Number)

(Filing Date)

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I hereby appoint the practitioners at **CUSTOMER NO. 2292** as my attorneys or agents to prosecute this application and/or an international application based on this application and to transact all business in the United States Patent and Trademark Office connected therewith and in connection with the resulting patent based on instructions received from the entity who first sent the application papers to the practitioners, unless the inventor(s) or assignee provides said practitioners with a written notice to the contrary:

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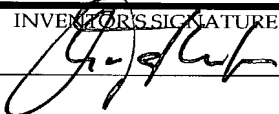


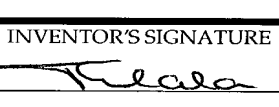
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